ATTACHMENT 5

January 2010 - Groundwater Sample Information Sheets

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-1	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 (2) 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	15.00 ft
Depth to product	ft
Depth to water (DTW)	11.96 ft

Sample Types (circle all applicable)
(Monitoring Well)
(Grab/Composite)
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	12.00 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) / N
Was passive sampling used?	Y / (N)
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.20	10.15	10.22				
Spec. Cond (µmhos)	+/- 3%	1.044	1.043	1.044				
D.O. (mg/L)	+/- 10%**	3.50	3.61	3.78				
pH	+/- 0.1	6.60	6.60	6.61				
ORP (mV)	+/- 10 mV**	152	149	147				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 11 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-163	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 (2) 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.47	ft
Depth to product		ft
Depth to water (DTW)	11.80	ft

Sample Types (circle all applicable)
- Monitoring Well
- Grab/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	16.47 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.83	10.81	10.78				
Spec. Cond (µmhos)	+/- 3%	.970	.967	.962				
D.O. (mg/L)	+/- 10%**	2.88	2.84	2.81				
pH	+/- 0.1	6.84	6.83	6.82				
ORP (mV)	+/- 10 mV**	205	208	208				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 11 : 20 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: n/a
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-173	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 (2) 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	17.55 ft
Depth to product	ft
Depth to water (DTW)	13.85 ft

Sample Types (circle all applicable)
(Monitoring Well)
(Grab)/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	14.55 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.89	10.87	10.89				
Spec. Cond (µmhos)	+/- 3%	.693	.692	.692				
D.O. (mg/L)	+/- 10%**	3.15	2.94	2.89				
pH	+/- 0.1	7.08	7.01	7.06				
ORP (mV)	+/- 10 mV**	290	290	289				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: n/a gallons
Sample Date: 1/27/10 Sample Time: 11 : 40 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: n/a After filtration: n/a
Reaction upon addition of preservatives? YES (NO) explain: n/a
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: mw-156	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.53	ft
Depth to product		ft
Depth to water (DTW)	12.51	ft

Sample Types (circle all applicable)

(Monitoring Well)
(Grab)/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	15.53 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	9.65	9.61	9.63				
Spec. Cond (µmhos)	+/- 3%	.721	.718	.716				
D.O. (mg/L)	+/- 10%**	3.40	3.40	3.30				
pH	+/- 0.1	7.10	7.10	7.10				
ORP (mV)	+/- 10 mV**	310	312	312				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 13 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-151	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1/2/4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.67	ft
Depth to product		ft
Depth to water (DTW)	14.25	ft

Sample Types (circle all applicable)
(Monitoring Well)
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	15.67 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%							
Spec. Cond (µmhos)	+/- 3%							
D.O. (mg/L)	+/- 10%**							
pH	+/- 0.1							
ORP (mV)	+/- 10 mV**							
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 13 : 20 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.

GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: ~~Hill Rom Plating Facility~~ G.P.	KEI Project #: ~~12227~~ 2829-E
Sample I.D.: MW-157	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	17.18	ft
Depth to product		ft
Depth to water (DTW)	12.49	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	14.15	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =		mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.39	10.38	10.31	10.35			
Spec. Cond (µmhos)	+/- 3%	.1837	.1549	.1552	.1549			
D.O. (mg/L)	+/- 10%**	2.97	2.72	2.73	2.69			
pH	+/- 0.1	7.01	7.01	7.01	7.01			
ORP (mV)	+/- 10 mV**	311	310	310	308			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 11 : 40 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: O/C

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-147AR	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	28.70 ft
Depth to product	ft
Depth to water (DTW)	12.40 ft

Sample Types (circle all applicable)

(Monitoring Well)
~~Grab~~/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	25' ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / (N)
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / (P)			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	11.73	12.38	12.56	12.14			
Spec. Cond (µmhos)	+/- 3%	1391	1377	1373	1370			
D.O. (mg/L)	+/- 10%**	0	0	0	0			
pH	+/- 0.1	7.71	7.56	7.44	7.36			
ORP (mV)	+/- 10 mV**	-296.4	-306.1	-305.5	-314.3			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 5 gallons
Sample Date: 1/27/10 Sample Time: 9 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? ~~YES~~ (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good needs Bolts

Signature: Alan Harper Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-132R	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	19.15 ft
Depth to product	ft
Depth to water (DTW)	11.48 ft

Sample Types (circle all applicable)

- ~~Monitoring Well~~
- Grab/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling		⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)	ft		Depth of pump placement (place mid-screen)	16' ft
Conversion value (CV)*	x		Bubbles purged from flow cell?	Y / N
1 Well volume = H x CV	= gal		Is drawdown >0.3 feet	Y / ~~N~~
3 Well volumes =	= gal		Was passive sampling used?	Y / ~~N~~
Purge method (B = bailer, P = pump)	B / P		Flowrate =	mL/min
			ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	9.55	9.39	10.05	9.78	9.71		
Spec. Cond (µmhos)	+/- 3%	1100	1095	1090	1082	1074		
D.O. (mg/L)	+/- 10%**	2.16	2.10	2.33	2.25	2.28		
pH	+/- 0.1	7.10	7.10	7.09	7.07	7.07		
ORP (mV)	+/- 10 mV**	-173.3	-169.7	-159.8	-155.8	-155.4		
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 15 gallons
Sample Date: 1/27/10 Sample Time: 9:30 (military time)
Was metals sample filtered prior to preservation? YES ~~NO~~ method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES ~~NO~~ explain:_____
Appearance of Water: (Clear/~~Slightly Turbid~~/Turbid/Very Turbid)
Well condition: Mud needs Bolts

Signature: Allen Ferguson Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-148R	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	24.55 ft
Depth to product	ft
Depth to water (DTW)	11.32 ft

Sample Types (circle all applicable)

(Monitoring Well)
(Grab/Composite)
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	21' ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	Y / (N)
Was passive sampling used?	Y / (N)
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	7.90	14.89	10.55	11.66			
Spec. Cond (µmhos)	+/- 3%	1292	1279	1260	1260			
D.O. (mg/L)	+/- 10%**	0.31	0.28	0.10	0.11			
pH	+/- 0.1	6.83	6.84	6.83	6.82			
ORP (mV)	+/- 10 mV**	-228.8	-208.0	-215.3	-207.9			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 14 gallons
Sample Date: 1/27/10 Sample Time: 10:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good needs Bolts.

Signature: Allen Hayes Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW -153	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	20.95	ft
Depth to product		ft
Depth to water (DTW)	11.50	ft

Sample Types (circle all applicable)
(Monitoring Well)
(Grab) ~~Composite~~
Split Sample
Duplicate (Duplicate ID: DUP -01)
~~MS/MSD~~
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	17.95	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	Y / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / N	
Purge method (B = bailer, P = pump)	B / P			Flowrate =		mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	9.43	9.56	9.63	9.60			
Spec. Cond (µmhos)	+/- 3%	1723	1719	1719	1717			
D.O. (mg/L)	+/- 10%**	8.18	8.47	8.54	8.54			
pH	+/- 0.1	7.16	7.16	7.17	7.17			
ORP (mV)	+/- 10 mV**	-60.2	-72.1	-72.2	-72.4			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.5 gallons
Sample Date: 1/27/10 Sample Time: 10 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: _____ Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-101R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.95	ft
Depth to product		ft
Depth to water (DTW)	14.89 14.89	ft

Sample Types (circle all applicable)

- (Monitoring Well)
- Grab/Composite
- Split Sample
- (Duplicate) (Duplicate ID: DUP-02)
- (MS/MSD)
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	16 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / (N)
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	11.03	11.29	11.31				
Spec. Cond (µmhos)	+/- 3%	886	886	886				
D.O. (mg/L)	+/- 10%**	2.58	2.47	2.45				
pH	+/- 0.1	6.73	6.73	6.73				
ORP (mV)	+/- 10 mV**	-120.1	-121.1	-122.5				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 15 gallons
Sample Date: 1/22/10 Sample Time: 11 : 15 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Hard

Signature: Alan Kemper Date: 1-22-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: IW-2	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	16.97	ft
Depth to product		ft
Depth to water (DTW)	13.31	ft

Sample Types (circle all applicable)

(Monitoring Well)
(Grab/Composite)
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	13.97 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) / N
Was passive sampling used?	Y / (N)
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.81	10.52	11.01				
Spec. Cond (µmhos)	+/- 3%	.720	.719	.718				
D.O. (mg/L)	+/- 10%**	2.25	1.95	2.02				
pH	+/- 0.1	7.03	7.02	7.03				
ORP (mV)	+/- 10 mV**	417	417	416				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 10 : 40 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW - 164	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	25.00	ft
Depth to product		ft
Depth to water (DTW)	19.66	ft

Sample Types (circle all applicable)

- (Monitoring Well)
- (Grab/Composite)
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	22.00 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.38	12.40	12.41				
Spec. Cond (µmhos)	+/- 3%	1959	1957	1948				
D.O. (mg/L)	+/- 10%**	1.02	1.02	1.98				
pH	+/- 0.1	6.96	6.96	6.96				
ORP (mV)	+/- 10 mV**	273	275	277				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 14 : 20 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-15D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.90	ft
Depth to product		ft
Depth to water (DTW)	13.50	ft

Sample Types (circle all applicable)
- (Monitoring Well)
- (Grab)/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	16' ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / (N)
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / (P)			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.29	11.03	11.85	12.26			
Spec. Cond (µmhos)	+/- 3%	920	921	918	921			
D.O. (mg/L)	+/- 10%**	2.05	1.32	0.91	0.78			
pH	+/- 0.1	6.80	6.77	6.75	6.74			
ORP (mV)	+/- 10 mV**	-176.9	-177.1	-174.3	-173.9			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 5 gallons
Sample Date: 1/27/10 Sample Time: 12:30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK needs BRITE

Signature: Allen Hansen Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-152	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	18.75 ft
Depth to product	ft
Depth to water (DTW)	13.95 ft

Sample Types (circle all applicable)

- (Monitoring Well)
- Grab/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling		⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)	ft		Depth of pump placement (place mid-screen)	16' ft
Conversion value (CV)*	x		Bubbles purged from flow cell?	Y / N
1 Well volume = H x CV	= gal		Is drawdown >0.3 feet	Y / N
3 Well volumes =	= gal		Was passive sampling used?	Y / N
Purge method (B = bailer, P = pump)	B / P		Flowrate =	mL/min
			ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.32	12.83	13.03				
Spec. Cond (µmhos)	+/- 3%	526	526	526				
D.O. (mg/L)	+/- 10%**	0.98	0.95	0.94				
pH	+/- 0.1	6.93	6.93	6.93				
ORP (mV)	+/- 10 mV**	-141.6	-141.6	-141.6				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: .5 gallons
Sample Date: 1/27/10 Sample Time: 13 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: BAD

Signature: Glenn Hampton Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-133R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1/2/4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	16.1	ft
Depth to product		ft
Depth to water (DTW)	9.72	ft

Sample Types (circle all applicable)

(Monitoring Well)
(Grab)/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	13 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y (N)
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)
Purge method (B = bailer, P = pump)	B (P)			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.45	10.65	10.36	11.04	11.66		
Spec. Cond (µmhos)	+/- 3%	1151	1149	1147	1146	1146		
D.O. (mg/L)	+/- 10%**	3.89	3.68	3.53	3.40	3.30		
pH	+/- 0.1	6.81	6.80	6.79	6.79	6.79		
ORP (mV)	+/- 10 mV**	-77.7	-80.7	-82.0	-82.2	-84.2		
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.5 gallons
Sample Date: 1/27/10 Sample Time: 13 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Needs Bolts

Signature: Alan Hayes Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-146	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	23.40	ft
Depth to product		ft
Depth to water (DTW)	9.80	ft

Sample Types (circle all applicable)
- (Monitoring Well)
- (Grab)/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	20' ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / (N)
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.94	10.14	9.66	9.58	9.30	9.21	
Spec. Cond (µmhos)	+/- 3%	1040	1048	1044	1041	1032	1025	
D.O. (mg/L)	+/- 10%**	1.29	0	0	0	0	0	
pH	+/- 0.1	6.58	6.57	6.57	6.57	6.58	6.58	
ORP (mV)	+/- 10 mV**	135.3	-177.4	-187.6	-190.7	-192.3	-192.4	
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 15 gallons
Sample Date: 1/27/10 Sample Time: 14 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK Needs Bolts 9/10

Signature: _____ Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-302	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	54.20 ~~37.90~~ ft
Depth to product	ft
Depth to water (DTW)	13.23 ~~12.66~~ ft

Sample Types (circle all applicable)
- ~~Monitoring Well~~
- ~~Grab~~/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	**Micropurge sampling**	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	51.20 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	11.70	11.71	11.69				
Spec. Cond (µmhos)	+/- 3%	648	648	649				
D.O. (mg/L)	+/- 10%**	0	0	0				
pH	+/- 0.1	7.17	7.17	7.17				
ORP (mV)	+/- 10 mV**	-241.5	-245.1	-246.1				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 1/27/10 Sample Time: 14 : 20 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES NO explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 1/27/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-160	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon) — PVC circled	
Inside Diameter, in.	(1 2 4 6) — 2 circled	
Stick up or stick down height		ft
Total depth of well (TD)	13.50	ft
Depth to product		ft
Depth to water (DTW)	3.65	ft

Sample Types (circle all applicable)
- Monitoring Well (circled)
- Grab/Composite (Grab circled)
- Split Sample
- Duplicate (Duplicate ID: ______________)
- MS/MSD
- Other______________

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P (P circled)	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	11.50	ft
Bubbles purged from flow cell?	Y / N (Y circled)	
Is drawdown >0.3 feet	Y / N (Y marked)	
Was passive sampling used?	Y / N (N circled)	
Flowrate =		mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.78	12.29	11.88				
Spec. Cond (μmhos)	+/- 3%	1750	1745	1747				
D.O. (mg/L)	+/- 10%**	0	0	0				
pH	+/- 0.1	6.67	6.67	6.67				
ORP (mV)	+/- 10 mV**	-300.8	-300.5	-300.2				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: .5 gallons
Sample Date: 1/27/10 Sample Time: 14:40 (military time)
Was metals sample filtered prior to preservation? YES NO (NO circled) method: 0.45 μm cartridge / other: _______
Color of water before filtration:__________ After filtration:__________
Reaction upon addition of preservatives? YES NO (NO circled) explain:______________________
Appearance of Water: (Clear/Slightly Turbid/Turbid/~~Very Turbid~~)
Well condition: NEW ~~[illegible]~~

Signature: Alan [illegible] Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-161	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 (2) 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	13.95	ft
Depth to product		ft
Depth to water (DTW)	5.28	ft

Sample Types (circle all applicable)
(Monitoring Well)
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	ft
Bubbles purged from flow cell?	Y / N
Is drawdown >0.3 feet	Y / N
Was passive sampling used?	Y / N
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	8.30	8.74	8.75				
Spec. Cond (µmhos)	+/- 3%	990	986	986				
D.O. (mg/L)	+/- 10%**	0.85	0.83	0.82				
pH	+/- 0.1	6.61	6.59	6.59				
ORP (mV)	+/- 10 mV**	-62.1	-60.7	-60.2				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 15 gallons
Sample Date: 1/27/10 Sample Time: 15:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration:_____ After filtration:_____
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: New ~~Needs lock~~

Signature: Allen Harper Date: 1-27-10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-169S	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	23.40	ft
Depth to product		ft
Depth to water (DTW)	20.40	ft

Sample Types (circle all applicable)
- (Monitoring Well)
- ~~Grab~~/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	20.40 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.31	13.35	13.36	13.34			
Spec. Cond (µmhos)	+/- 3%	1.091	1.086	1.085	1.085			
D.O. (mg/L)	+/- 10%**	1.37	1.19	1.07	.99			
pH	+/- 0.1	6.84	6.84	6.83	6.83			
ORP (mV)	+/- 10 mV**	238	236	234	233			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2/3/10 Sample Time: 10 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK needs Lid on Well

Signature: _____ Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-169D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	34.90	ft
Depth to product		ft
Depth to water (DTW)	20.45	ft

Sample Types (circle all applicable)
- (Monitoring Well)
- (Grab)/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- MS/MSD
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	31.90	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) N	
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =		mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.94	13.90	13.55	13.52	13.79		
Spec. Cond (µmhos)	+/- 3%	1.037	1.059	1.051	1.050	1.071		
D.O. (mg/L)	+/- 10%**	.44	.39	.33	.32	.30		
pH	+/- 0.1	6.85	6.87	6.89	6.89	6.90		
ORP (mV)	+/- 10 mV**	313	300	297	298	275		
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2/3/10 Sample Time: 10 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok needs lid on well

Signature: _____ Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-167S	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	22.00	ft
Depth to product		ft
Depth to water (DTW)	18.56	ft

Sample Types (circle all applicable)
(Monitoring Well)
~~Grab~~/Composite
Split Sample
~~Duplicate~~ (Duplicate ID: [redacted])
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	19.00	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	Y / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y N	
3 Well volumes =	=	gal		Was passive sampling used?	Y N	
Purge method (B = bailer, P = pump)	B / P			Flowrate =		mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.44	14.45	14.40				
Spec. Cond (µmhos)	+/- 3%	1.75	1.75	1.74				
D.O. (mg/L)	+/- 10%**	1.54	1.34	1.25				
pH	+/- 0.1	6.71	6.70	6.70				
ORP (mV)	+/- 10 mV**	352	351	351				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2/3/10 Sample Time: 13 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: [signature] Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-167D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	32.35	ft
Depth to product		ft
Depth to water (DTW)	18.75	ft

Sample Types (circle all applicable)

- (Monitoring Well)
- Grab/(Composite)
- Split Sample
- Duplicate (Duplicate ID: DUP-03)
- MS/MSD
- Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	29.35 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) / N
Was passive sampling used?	Y / (N)
Flowrate =	mL/min
ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.21	15.19	15.17	15.18			
Spec. Cond (µmhos)	+/- 3%	.975	.975	.971	.977			
D.O. (mg/L)	+/- 10%**	1.22	1.14	1.12	1.116			
pH	+/- 0.1	7.11	7.11	7.11	7.10			
ORP (mV)	+/- 10 mV**	180	174	174	174			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2 / 3 / 10 Sample Time: 13 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-1655	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1/2/4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.70 ~~19.20~~	ft
Depth to product		ft
Depth to water (DTW)	14.15 ~~14.97~~	ft

Sample Types (circle all applicable)
~~Monitoring Well~~
~~Grab~~/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	16.20	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/ N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/ N	
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =		mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	6.78	6.79	6.79	6.78			
Spec. Cond (µmhos)	+/- 3%	1,251	1,249	1,249	1,252			
D.O. (mg/L)	+/- 10%**	1.73	1.60	1.61	1.54			
pH	+/- 0.1	7.29	7.29	7.28	7.29			
ORP (mV)	+/- 10 mV**	161	153	152	153			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2/3/10 Sample Time: 14 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-1651	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1/2/4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	46.50 ~~49.65~~	ft
Depth to product		ft
Depth to water (DTW)	13.95 ~~14.74~~	ft

Sample Types (circle all applicable)
~~Monitoring Well~~
~~Grab~~/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	46.5	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) N	
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =		mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	11.43	11.48	11.51	11.53			
Spec. Cond (µmhos)	+/- 3%	.761	.769	.771	.773			
D.O. (mg/L)	+/- 10%**	1.30	1.23	1.17	1.16			
pH	+/- 0.1	7.24	7.24	7.24	7.24			
ORP (mV)	+/- 10 mV**	185	171	160	165			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2 / 3 / 10 Sample Time: 14 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D. MW-65	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.20 ~~19.70~~	ft
Depth to product		ft
Depth to water (DTW)	14.97 ~~14.15~~	ft

Sample Types (circle all applicable)
(Monitoring Well)
~~Grab/Composite~~
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	16.20	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =		mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.72	14.74	14.73	14.72			
Spec. Cond (µmhos)	+/- 3%	.937	.939	.940	.941			
D.O. (mg/L)	+/- 10%**	.56	.54	.51	.51			
pH	+/- 0.1	7.02	7.02	7.02	7.02			
ORP (mV)	+/- 10 mV**	203	204	201	203			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

* Eq. Blank 1620

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2 / 3 / 10 Sample Time: 15 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 2/3/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: G> P > former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-16(D)	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	49.65 ~~46.50~~	ft
Depth to product		ft
Depth to water (DTW)	14.74 ~~13.95~~	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	46.65 ~~43.50~~ ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	Y / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / N
Purge method (B = bailer, P = pump)	B / P			Flowrate =	mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.45	14.44	14.44				
Spec. Cond (µmhos)	+/- 3%	1984	1986	1987				
D.O. (mg/L)	+/- 10%**	1.29	1.21	1.19				
pH	+/- 0.1	7.18	7.18	7.18				
ORP (mV)	+/- 10 mV**	124	120	119				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 2/3/10 Sample Time: 15:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 2/3/10